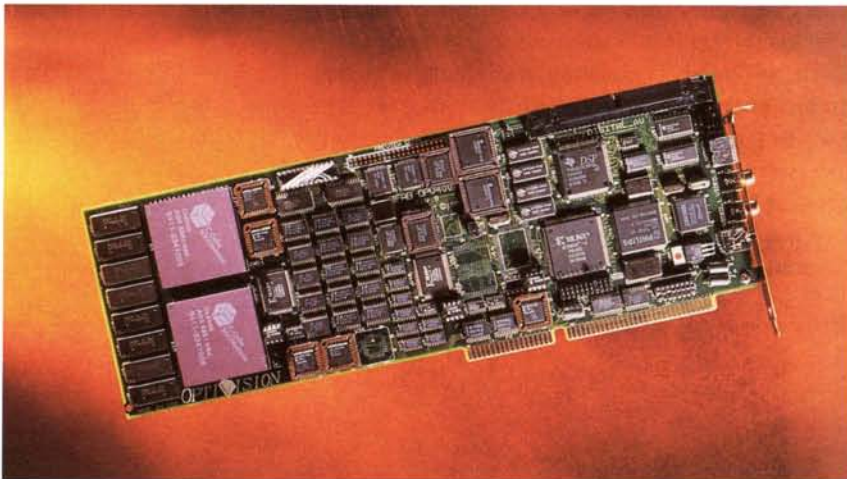
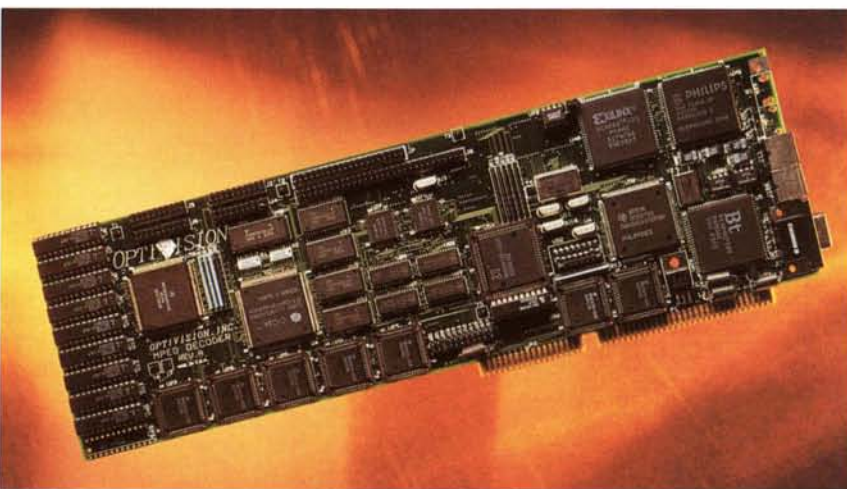


Video Compression

The **OPTIVideo™** MPEG Encoder and Decoder are two members of a family of products developed by Optivision, Inc., Palo Alto, California to speed up audio/video processing time and reduce costs. The encoder/decoder products were spawned by a NASA Small Business Innovation Research (SBIR) project.



The OPTIVideo Encoder converts video tapes and discs to compressed digital form at 30 frames a second.



The companion OPTIVideo Decoder decompresses the bit stream to provide high quality digital playback.

Established by Congress in 1982, the SBIR program has two major objectives: to increase participation of small businesses in federal R&D activities, and to stimulate conversion of government-funded research into practical products for the commercial market.

The commercial OPTIVideo systems stemmed from a Goddard Space Flight Center SBIR contract awarded to Optivision for development of two PC-compatible boards (the encoder and decoder) and associated software for realtime video compression and decompression; the research was intended to support NASA applications in such areas as telerobotics, telescience and spaceborne experimentation.

While working on the Goddard contract, Optivision committed its own internal funding to parallel development of the two commercial products. Both the government and commercial efforts proved successful, and Optivision introduced its first commercial MPEG encoders/decoders in 1993-94. The company has since sold more than 600 systems to customers in the telecommunications, cable, broadcast TV and CD-ROM markets. They are used in such applications as television advertisement insertion; video CD authoring; interactive video databases; video transmission; remote learning; and video-on-demand.

The systems offer realtime encoding and decoding at 30 frames a second. The MPEG encoder converts video source material, such as VHS tapes and laser discs, to a manageable compressed digital form that can be easily stored or transmitted (the MPEG refers to the compression algorithm, the standard established by the international Motion Picture Expert Group). The decoder decompresses bit streams to provide high quality digital playback of full screen video and CD quality stereo audio.

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